

Rubric for Organic Lab Reports – Summer 2017

Name:

Section:

Date:

Experiment Title:

Item	Max Score	Your Score
Introduction	6	
Physical Data	3	
Procedure	3	
Data & Observations	6	
Discussion of Results	15	
Technique	6	
Format	6	
RAW TOTAL	45	
Days late	-	
Points lost due to lateness (10%/day)	-	
FINAL GRADE	45	

Typed prelab (containing introduction, physical data, and procedure) is due at start of experiment. Data & observations are handwritten during experiment. Before you leave lab, your TA will initial your prelab and data & observations. The following lab period, turn in your lab report as a single stapled document containing, in this order: 1) Copy of this rubric 2) Initialed prelab 3) Data & observations 4) Typed postlab (containing discussion of results and any relevant spectra)

	Full points	Two-thirds points	One-third points	No points
Introduction (6 pts)	<ul style="list-style-type: none"> ○ Purpose is stated clearly and correctly in a few sentences ○ Structures (and mechanism, for preparative labs) are drawn in ChemDraw (or similar program) with no errors ○ Any other info requested by experiment manual is complete and correct 	<ul style="list-style-type: none"> ○ Purpose has minor errors, is incomplete or far too wordy ○ Structures (and mechanism, for preparative labs) are drawn in ChemDraw with minor errors or omissions ○ Info requested by experiment manual is mostly complete and correct 	<ul style="list-style-type: none"> ○ Purpose is stated vaguely or incorrectly ○ Structures (and mechanism, for preparative labs) are drawn in ChemDraw with major errors or omissions ○ Info requested by experiment manual is incomplete or incorrect 	<ul style="list-style-type: none"> ○ Purpose is not stated ○ Structures (and mechanism, for preparative labs) are not shown at all, or are copied from another source, or are hand-drawn ○ Info requested by experiment manual is missing
Physical Data (3 pts)	<ul style="list-style-type: none"> ○ All compounds used in experiment are listed ○ All relevant physical properties are given for each compound ○ Amount of each reagent is correctly calculated, if not given in g or mL in manual ○ Preparative lab only: Theoretical yield is correctly calculated, based on quantities of reagents given in procedure 	<ul style="list-style-type: none"> ○ Most compounds are listed ○ Most physical properties are given for each compound ○ Amount of each reagent is calculated almost correctly ○ Preparative lab only: Theoretical yield is calculated almost correctly 	<ul style="list-style-type: none"> ○ Under half of compounds are listed ○ Some physical properties are given for each compound ○ Amount of each reagent is calculated with several mistakes ○ Preparative lab only: Theoretical yield is calculated with several mistakes 	<ul style="list-style-type: none"> ○ Few or no compounds are listed ○ Few or no physical properties are given ○ Amount of each reagent is not calculated ○ Preparative lab only: Theoretical yield is not calculated

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Procedure (3 pts)	<ul style="list-style-type: none"> ○ All steps are listed clearly, in correct order 	<ul style="list-style-type: none"> ○ Most steps are listed clearly, in correct order 	<ul style="list-style-type: none"> ○ Most steps are listed incorrectly, unclearly, or in wrong order 	<ul style="list-style-type: none"> ○ No steps are listed
Data & Observations (6 pts)	<ul style="list-style-type: none"> ○ Data and observations are present, clearly labeled and organized ○ Data is handwritten clearly on carbon-copy paper during experiment 	<ul style="list-style-type: none"> ○ Data and observations are mostly present, but disorganized or not labeled ○ Data is handwritten sloppily on carbon-copy paper during experiment 	<ul style="list-style-type: none"> ○ Data and observations are mostly missing, or so disorganized that they are useless ○ Data is either not written during lab, or very sloppy 	<ul style="list-style-type: none"> ○ Data and observations are missing
Discussion of Results (15 pts)	<ul style="list-style-type: none"> ○ Procedure is discussed with full explanation of why each step was performed ○ Data & observations are interpreted correctly ○ Any required spectra are attached and interpreted correctly ○ If relevant, percent yield or percent recovery is calculated correctly. Theoretical yield is revised, based on quantities of reagents used ○ Analysis of error and suggestions for improvements are thorough ○ Any other info specified by experiment manual is complete and correct ○ Writing is clear ○ Writing is in third-person past tense 	<ul style="list-style-type: none"> ○ Procedure is discussed with partial explanation ○ Data & observations are interpreted mostly correctly ○ Any required spectra are interpreted mostly correctly ○ If relevant, percent yield or percent recovery is calculated almost correctly. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are present but brief ○ Any other info specified by experiment manual is mostly complete and correct ○ Writing is fairly clear ○ Writing is mostly in third-person past tense 	<ul style="list-style-type: none"> ○ Experimental procedure is discussed with incorrect/no explanation ○ Data & observations are incompletely or incorrectly interpreted ○ Any required spectra are interpreted with significant errors ○ If relevant, percent yield or percent recovery is calculated incorrectly. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are mostly missing or inadequate ○ Any other info specified by experiment manual is incomplete or incorrect ○ Writing is fairly confusing ○ Writing is mostly in wrong tense 	<ul style="list-style-type: none"> ○ Experimental procedure is not discussed ○ Data & observations are not interpreted ○ Any required spectra are missing or not interpreted ○ If relevant, percent yield or percent recovery is not calculated. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are not given ○ Any other info specified by experiment manual is missing ○ Writing is very confusing ○ Writing is in wrong tense
Technique (6 pts)	<ul style="list-style-type: none"> ○ Student was prepared for lab and understood procedure & technique ○ Student followed correct safety procedures throughout experiment 	<ul style="list-style-type: none"> ○ Student was mostly prepared for lab and mostly understood procedure & technique ○ Student violated safety rules once or twice (no goggles, shorts, etc.) 	<ul style="list-style-type: none"> ○ Student was unprepared for lab and understood procedure & technique poorly ○ Student violated safety rules several times 	<ul style="list-style-type: none"> ○ Student was completely unprepared for lab and had no understanding of experiment ○ Student committed significant violations of safety rules
Format (6 pts)	<ul style="list-style-type: none"> ○ Report is typed (except for data) and turned in as paper copy, with good spelling, formatting, and grammar ○ All parts of lab report are present in correct order ○ All parts of lab report have identifying information 	<ul style="list-style-type: none"> ○ Report is typed but has some spelling, formatting or grammatical errors ○ All parts are present but not in correct order ○ Lab report has most of identifying info 	<ul style="list-style-type: none"> ○ Report is typed but has significant spelling, formatting or grammatical errors ○ Rubric sheet is not attached ○ Lab report has little identifying info 	<ul style="list-style-type: none"> ○ Entire lab report is handwritten, or not turned in as hard copy, or has terrible spelling or grammar ○ Multiple sections of lab report are missing ○ Lab report has no identifying info